Claims

[c1] A method of operating a tire pressure monitoring system for a vehicle having a plurality of tire locations and a memory comprising:
generating an ignition signal;
generating a brake condition signal;
entering a learn mode in response to the ignition signal and the brake condition signal.

[c2] A method as recited in claim 1 wherein the ignition condition signal transitions from an off state to an on state, further comprises counting the transitions, and entering the learn mode after a predetermined number of transitions.

[c3] A method as recited in claim 2 wherein counting comprises counting the number of transitions before and after generating the brake condition signal.

[c4] A method as recited in claim 3 wherein the predetermined number comprises three.

[c5] A method as recited in claim 3 wherein generating a brake condition signal comprises generating a brake transition signal.

[c6] A method as recited in claim 1 further comprising generating a first display signal indicative of a first tire location in response to entering the learn mode.

[c7] A method as recited in claim 6 further comprising activating a timer in response to entering the learn mode.

[c8] A method as recited in claim 7 further comprising when a first transmitter identification signal is received before a predetermined time counted by the timer, resetting the timer and generating a second display signal indicative of a second tire location.

[c9] A method as recited in claim 8 further comprising receiving a second transmitter identification signal.

[c10] A method as recited in claim 9 further comprising associating the first identification signal with a first tire location and a second identification signal

with a second tire location.

[c11] A method as recited in claim 1 wherein at least one of the first location second location comprises a spare location.

[c12] A method of operating a tire pressure monitoring system for a vehicle having a plurality of tire locations and a memory comprising:
generating an ignition signal;
generating a brake condition signal;
generating a speed signal;
entering a learn mode in response to the ignition signal, the brake condition signal;
thereafter, sequentially
generating a plurality of display signals indicative of the respective plurality of tire locations;
activating a timer; and
when the plurality of transmitter identification signals are received before a predetermined time counted by the timer, associating the respective plurality of identification signals with the respective plurality of locations in a memory.

[c13] A method as recited in claim 12 further comprising generating a status signal indicative of a successful process in response to the step of associating.

[c14] A method as recited in claim 12 further comprising when during the steps of generating or activating, the speed is greater than a predetermined speed leaving the learn mode;
A method as recited in claim 12 further comprising when during the steps of generating or activating, the ignition is off leaving the learn mode.

[c15] A method as recited in claim 12 wherein at least one of the plurality of locations comprise a spare location.

[c16] A tire pressure monitoring system for a vehicle comprising:
an ignition switch generating an ignition signal;
a brake switch generating a brake condition signal;
a counter coupled to said ignition switch counting a count of ignition signal

transitions

a plurality of tires having a respective plurality of tire transmitters generating a respective plurality of transmitter identification signals; and

a controller coupled to said counter , said controller entering a learn mode in response to the count and the brake condition signal.

[c17] A system as recited in claim 17 further comprising a display for signaling a desired action, wherein said controller generates a plurality of display signals on the display indicative of the respective plurality of tire locations; activating the timer; when a the plurality of transmitter identification signals are received before a predetermined time counted by the timer.

[c18] A system as recited in claim 18 further comprising a memory; and associating the respective plurality of identification signals with the respective plurality of locations in a memory.